

CLAIMS

1. A cam lobe material, characterized in that the cam lobe material is formed from an iron-based sintered alloy that 5 contains 0.3 to 5.0 mass% Ni, 0.5 to 1.2 mass% C, 0.02 to 0.3 mass% of at least either of B and P, and incidental impurities as the balance, and has a hardness of a peripheral surface of not less than HRC 50 and a density of not less than 7.5 g/cm³.
- 10 2. The cam lobe material according to claim 1, characterized in that the iron-based sintered alloy further contains not more than 2.5 mass% Mo.
- 15 3. The cam lobe material according to claim 1 or 2, characterized in that the cam lobe material uses a roller follower as a mating member.
4. A cam shaft, characterized in that the cam shaft is provided with a cam lobe formed from the cam lobe material according to any one of claims 1 to 3.
- 20 5. A method of manufacturing the cam lobe material according to claims 1 to 3, characterized in that a compression molding step and a sintering step are repeated at least twice, the compression molding step involving compression molding iron-based alloy powders prepared so as to provide the composition of the ferrous sintered alloy in a prescribed cam 25 lobe shape, and the sintering step involving sintering the compression molded compact body, and that the sintered body is subjected to quench and tempering treatment.

6. The method of manufacturing the cam lobe material according to claims 5, characterized in that the peripheral surface of the cam lobe material is shot blasted.